FY 2003 DART ACCOMPLISHMENTS

(October 27, 2003)

- **Completed operational transition of the DART buoy network from PMEL to NDBC**

  - Completed all engineering drawings for the DART network
  - Completed operational and field procedures
  - Participated/Lead buoy exchanges at sea

- **Exchanged and serviced 5 of the 6 DART surface buoys (with the exception of station 46401 - D171)**

- **Integrated DART Network into NDBC web site.**

  - Delivered real time DART data via NDBC web site.
  - Archived FY03 DART data

- **Deployment of PMEL's Next Generation DART system.**

  - Iridium 2-Way Communications
  - HDR GOES
  - New Design Buoy and BPR

FY 2004 DART BUOYS PROJECT PLAN

(October 27, 2003)

PROGRAM TITLE: DART Buoy Program

PROGRAM MANAGER: Landry Bernard (NDBC)

DESCRIPTION:

Maintain the Deep-ocean Assessment and Reporting of Tsunamis (DART) Network in a high state of operation.

PLANS/MILESTONES:

- Operate and Maintain the existing 6 DART stations (46401, 46402, 46403, 46404, 46405 and 46406).
- Process and display DART data.
- Maintain documentation of DART systems.
- Plan integration of Prototype DART system into NDBC operational network.
- Continue DART system R&D effort with Pacific Marine Environmental Laboratory (PMEL), including improving bi-directional systems, studying expandable BPR, adding auxiliary sensors.

DELIVERABLES:

- Maintain the Deep-ocean Assessment and Reporting of Tsunamis (DART) Network in a high state of operation
- Prepare 6 DART systems for scheduled deployment and service.
- Process, archive and post near real-time data.
- Perform statistical performance analysis for operational DART stations.
- Purchase and prepare one (1) complete additional DART system.
- Engineering report on combining DART and traditional NDBC buoy platforms.
- Increase inventory of DART Line Replacement Units (LRUs) to 30% spare level.
- Increase property and consumable inventory to comfortable limits to support DART missions.
- Add hardware and software to the DART system to download hours of high-frequency BPR data on demand from the desktop, while keeping the existing features of the system.
- Recover the test buoy D129 and replace with an improved prototype bi-directional system. Depending on ship-time availability current system will be refurbished with new hardware and software, and then re-deployed at a later date.

FY 2004 DART BUOYS PROJECT PLAN

(October 27, 2003)

FUNDING:		$1,197.7K
NDBC-OPS		
Travel		$ 35K
Transportation		$ 73K
Telecom		$ 30K
Equip. Rental		$ 10K
Ops Labor		$160K
IT Support		$ 80K
Eng Support		$100K
Contract to build PCB's (by PMEL)		$ 50K
Inventory Expansion		$ 356K
- Buoy Hulls	$ 60K	
- BPRs	$ 50K	
- Moorings	$ 70K	
- Acoustic Releases	$ 50K	
- Deck Set/Transducer	$ 20K	
- Acoustic Modems	$ 50K	
- Other Dart LRUs	$ 56K	
Contingency		$43.7K
NDBC TOTAL		$937.7K
PMEL R&D ACTIVITIES		
Hardware (Iridium, etc.)		$80K
Developmental Labor		$85K
Sea time labor		$10K
Shipping to/from west coast		$10K
Ship time for D129 (if no piggyback Ops available)		$40K
Continued engineering, document, & ops support for existing DART network		$35K
PMEL TOTAL		$260K